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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/706,814	11/07/2000	Kang-Wook Chun	Q61285	5957
7590 12/24/2008 Sughrue Mion Zinn Macpeak & Scas PLLC 2100 Pennsylvania Avenue NW Washington, DC 20037-3202				
EXAMINER				
ATALA, JAMIE JO				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

09/706,814

Applicant(s)

CHUN, KANG-WOOK

Examiner

JAMIE JO VENT ATALA

Art Unit

2621

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No./Mail Date: _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see after final arguments, filed December 4, 2008, with respect to Claim 1 have been fully considered and are persuasive. The final office action of September 4, 2008 has been withdrawn. The following is a new first action office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,2,5,9,10, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable by Niida et al (US 6,052,507) in view of Negishi et al (US 6,754,239) in further view of Anderson et al (US 6,091,772).

[claim 1]

In regard to Claim 1, Niida et al discloses an apparatus for storing audio and/or video data which is transmitted in the form of a packet including a program specific information (PSI) (Figure 5), the audio and/or video data storing apparatus comprising:

- An audio/video parser for parsing an audio and/or video packet using the packet identification information and outputting an audio and/or video

packet (Figure 12 shows the output of audio or video packet information after the information has been parsed as described in Column 13 Lines 13-46);

- A storage medium (Figure 6 shows memory 106 and 108); and
- A controller for controlling each element so that the additional information is inserted into the audio and/or video packet so as to be stored in the storage medium (Figure 12 control circuit 112 and described in Column 14 Lines 6-33); however, fails to disclose
 - A packet parser for extracting packet identification information from a PSI packet and outputting additional information corresponding to the extracted packet identification information and an audio and/or video packet
 - an audio/video producer for inserting the additional information supplied from the packet parser into a particular region in the audio and/or video packet supplied from the audio/video parser and the additional information does not include the packet identifier information.

Negishi et al discloses a multiplexing and transmitting apparatus wherein the packet parser extracts information in regard to the additional information being inputted (Figure 1 shows the inserting of additional information into the data stream).

Furthermore, as described in Column 6 Lines 37-67 the system identifies and outputs the additional information that is supplied from the packet parser into a particular region

of the audio/video stream as further described in Column 8 Lines 23-65. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the system of storing data, as disclosed by Niida, and further teach the system to insert additional information into the stream based on extracted packet information, as taught by Negishi et al, in order to provide the user with management data for recording without disrupting the process of the system.

Anderson et al further teaches the use of additional information that is sent through the MPEG-2 transport layer containing content of the transport stream and thus not containing packet identifier information as described in Column 5 Lines 50+. The additional information not containing packet identifier information allows for the additional information to contain specific details about the A/V information and thereby form a packet with appropriate data. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Niida in view of Negishi et al ,in order to specifically put the PSI data at the head of a MPEG stream and thereby meeting the limitation of inserting additional information, and further incorporate the use of additional information not containing packet identifier information, as further taught by Anderson et al, in order to provide management data to the user.

[claim 2]

In regard to Claim 2, Niida et al discloses the audio/video data storing apparatus wherein the packet parser comprises:

- A program association table (PAT) parser for searching the packet to thereby detect packet identifier information of a plurality of tables included

in the PAT and outputting the detected results (Column 3 Lines 40-57 describes the searching of packet information as further seen in Figure 4);

- A program map table (PMT) parser for detecting audio and or video packet using the table packet and outputting the detected result (Column 3 Lines 50-63 describes the PMT for detecting A/V packet);
- A plurality of table parsers for outputting additional information of the plurality of table packets (Figure 8 shows the parsing of various information from plurality of table packets as further described in Column 8 Lines 5+); and
- An audio/video packet processor for converting the pattern of the audio and or video packet detected from the PMT parser and outputting the converted result (Column 9 Lines 4-50 describes the detection of PMT and outputting the correct result).

[claim 5]

In regard to Claim 5, Niida et al discloses the audio/video storing apparatus wherein said audio/video parser further comprises a decryptor for decrypting the audio and or video packet in the case that the audio and or video packet supplied from the packet parser has been encrypted (Figure 12 shows the output of audio or video packet information after the information has been parsed as described in Column 13 Lines 13-46).

[claim 9]

In regard to Claim 9, Niida et al discloses audio/video data storing apparatus wherein additional information is image feature information such as a title, classification code, a time, content information, energy information and motion information of a user desired program (Column 10 32-42 describes the control information associated with the A/V data. Although, Niida is silent regarding what is contained in the control information and the information contained in the PSI it is well known in the art that PSI information contains specific reproduction information pertaining to the A/V data such as title, time, and content information of the A/V stream).

[claim 10]

In regard to Claim 10, Niida discloses an apparatus for storing received audio and or video data the audio and or video data storing apparatus comprising:

- A feature parser for parsing features of the input audio and video signal and outputting the parser result (Figure 6 shows the extracting of information from the PSI wherein information is outputted from the extracted information as further described in Column 8 Lines 1-23);
- A program information imputer for receiving user desired program information (Figure 10 data identification signal detects information being inputted into the system based on the reproduction);
- An additional information processor for producing additional information based on the program information supplied from the program information input and the parsed result supplied from the feature parser and outputting

the produced additional information (Column 13 Lines 35-57 describes the additional information being used to supply information regarding the PSI);

- A storage medium (Figure 6 shows memory 106 and 108); and
- A controller for controlling each elements that the additional information is inserted into the audio/video packet so as to be stored in the storage medium (Figure 12 control circuit 112 and described in Column 14 Lines 6-33);
- Encoded data (Column 1 Lines 28-50 describes encoded data); however fails to disclose
 - An audio/video producer for inserting the additional information supplied from the additional information processor into a particular region of the audio/video packet supplied from the encoder
 - additional information being inserted into the transport stream and an encoder for converting the received audio and or video signal into an audio and or video packet and outputting the converted result.

Negishi et al discloses a multiplexing and transmitting apparatus wherein the packet parser extracts information in regard to the additional information being inputted (Figure 1 shows the inserting of additional information into the data stream).

Furthermore, as described in Column 6 Lines 37-67 the system identifies and outputs the additional information that is supplied from the packet parser into a particular region of the audio/video stream as further described in Column 8 Lines 23-65. Therefore, it

would have been obvious to one of ordinary skill in the art at the time of the invention to use the system of storing data, as disclosed by Niida, and further teach the system to insert additional information into the stream based on extracted packet information, as taught by Negishi et al, in order to provide the user with management data for recording without disrupting the process of the system.

Anderson et al teaches a system wherein encoders are used for encoding data into the MPEG stream as seen in Figure 1. The system provides the encoding to allow for proper processing of the data stream as described in Column 2 Lines 1-30. Therefore it would be obvious to one of ordinary skill in the art to use the system of processing A/V information, as disclosed by Niida et al, and further incorporate a system that describes encoders used, as taught by Anderson, to provide encoding of data to the system.

[claim 15]

In regard to Claim 15, Niija discloses an apparatus for searching audio or video data having the form of an audio and or video packet including additional information of user desired program, the audio/video data searching apparatus comprising:

- Input portion for receiving an audio and or video packet including additional information (Figure 10 shows the input for receiving audio and video packet information);
- An additional information classifier for parsing the audio and or video packet from the input portion and extracting and outputting the additional information and then outputting the audio and or video packet expecting

for the additional information of a packet elementary stream (Figure 6 shows the extracting of information from the PSI wherein information is outputted from the extracted information as further described in Column 8 Lines 1-23);

- An additional information parser comparing the additional information received from the additional information classifier with user search information and outputting a parsed result with respect to whether or not the search information is included in the additional information (Column 13 Lines 35-57 describes the additional information being used to supply information regarding the PSI);
- An audio/video decoder for decoding an audio or video packet supplied from the additional information classifier according to the parsed result supplied from the additional information parser (Figure 12 shows the output of audio or video packet information after the information has been parsed as described in Column 13 Lines 13-46); and
- An output portion for outputting a decoded result supplied from the audio/video decoder and the additional information (Figure 10 shows the output of the outputted decoded results).

3. Claims 3, 4, 6, 7, 8, 11, 12, 13, 14, and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Niida et al (US 6,052,507) in view of Negishi et al (US 6,754,239) in

further view of Anderson et al (US 6,091,772) in further view of Oishi et al (US 6,779,195).

[claim 3]

In regard to Claim 3, Nijja in view of Negishi et al in view of Anderson et al discloses the audio/video data storing apparatus having a time data table parser for receiving a TDT packet from the PMT parser and outputting additional information as further disclosed in by Nijja in Column 3 Lines 25+; however fails to disclose plurality of table parsers further comprising:

- A network information table (NIT) parser for receiving a NIT packet from the PMT parser and outputting an event information table (EIT packet);
- An EIT parser for receiving the EIT packet from the NIT parser and outputting additional information; and
- A service description table (SDT) parser for receiving a SDT packet from the PMT parser and outputting additional information.

Oishi et al discloses a signal processing apparatus wherein NIT packet is received from the PMT and further outputs an event information table as described in Column 5 Lines 10+. Furthermore, it is disclosed that an EIT parser is used to receive EIT packet information from the NIT parser and that a service description table is received from the PMT parser for outputting additional information pertaining to the audio video information as disclosed in Column 6 Lines 1-32. The additional information from the various tables allows the user to search and use the information regarding the audio and video information in a more efficient manner. Therefore, it would have been

obvious to one of ordinary skill in the art to use the audio/video data storage system, as disclosed by Niija in view of Negishi et al in further view of Anderson, and incorporate a system wherein network information, event information, and service description information can further be incorporated into the video and audio information, as disclosed by Oishi et al.

[claim 4]

In regard to Claim 4, Niija in view of Negishi et al in view of Anderson et al, discloses the audio/video storing apparatus wherein said audio/video packet processor; however, fails to disclose the converting of the audio/video packet into a packetized elementary stream (PES). Oishi et al discloses a packet format of the PES packet wherein as seen in Figure 4 a header region is available as well as user data region which is used to insert additional information into the data stream. Therefore, it would have been obvious to one of ordinary skill in the art to use the audio/video storing apparatus as disclosed by Niija in view of Negishi et al in view of Anderson et al, and incorporate the method of converting the audio/video packet into packetized elementary streams (PES), as disclosed by Oishi et al, which allows for additional information to be stored into various parts of the data stream.

[claim 6]

In regard to Claim 6, Niida et al discloses an audio/video data storing apparatus; however, fails to disclose a header detector for detecting a header region in the audio and or video packet from the audio/video parser and outputting the detected result and

an additional information inserter for inserting the additional information supplied from the packet parser into the header region detected in the header detector. Oishi et al discloses that header regions are used to output the detected result and for inserting additional information as disclosed in Column 4 Lines48-62 and it is further seen in Figure 12 the signal processing unit which detects header regions of the audio/video stream to be used for further manipulation of data. Therefore, it would have been obvious to one of ordinary skill in the art to use the audio/video data storing apparatus as disclosed by Niida et al in view of Blatter in further view of Anderson et al, and incorporate a system wherein header portions are detected, as disclosed by Oishi et al, to allow for adding of additional information into the data stream.

[claim 7]

In regard to Claim 7, the claim limitations have been previously discussed in Claim 4.

[claim 8]

In regard to Claim 8, the claim limitations have been previously discussed in Claim 4.

[claim 11]

In regard to Claim 11, the claim limitations have been previously discussed in Claim 4.

[claim 12]

In regard to Claim 12, the claim limitations have been previously discussed in Claim 4.

[claim 13]

In regard to Claim 13, the claim limitations have been previously discussed in Claim 4.

[claim 14]

In regard to Claim 14, Niida et al discloses audio/video data storing apparatus wherein additional information is image feature information such as a title, classification code, a time, content information, energy information and motion information of a user desired program (Column 10 32-42 describes the control information associated with the A/V data. Although, Niida is silent regarding what is contained in the control information and the information contained in the PSI it is well known in the art that PSI information contains specific reproduction information pertaining to the A/V data such as title, time, and content information of the A/V stream).

[claim 16]

In regard to Claim 16, Niida et al discloses audio/video data storing apparatus wherein additional information is image feature information such as a title, classification code, a time, content information, energy information and motion information of a user desired program (Column 10 32-42 describes the control information associated with the A/V data. Although, Niida is silent regarding what is contained in the control information and the information contained in the PSI it is well known in the art that PSI information contains specific reproduction information pertaining to the A/V data such as title, time, and content information of the A/V stream).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Voois et al (US 6,404,776).

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMIE JO VENT ATALA whose telephone number is (571)272-7384. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/JAMIE JO VENT ATALA/

Examiner, Art Unit 2621

/Thai Tran/

Supervisory Patent Examiner, Art Unit 2621